

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER PROTECTION BUREAU  
Metcalf Building, Helena, Montana 59620  
(406) 444-3080**

**ENVIRONMENTAL ASSESSMENT (EA)**

**Division/Bureau:** Permitting & Compliance Division, MPDES Permits;

**Project or Application:** City of Shelby, Wastewater Treatment Facility, Permit Renewal MT0031488

**Description of Project:** This is for the reissuance of a wastewater discharge permit issued to the City of Shelby under the Montana Pollutant Discharge Elimination System (MPDES). Discharge is to the Medicine Rock Coulee, a effluent dominated ephemeral tributary to the Marias River. Medicine Rock Coulee is classified as a B-2 waterbody by the Montana Surface Water Quality Standards.

**Benefits and Purpose of Proposal:**

Benefits from issuing this permit would ensure adequate treatment of domestic sewage before discharging to surface water. Re-issuance of this permit will allow for additional monitoring during the permit term.

**Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider:**

None

**Listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by this or another government agency:**

None

**Affected Environment and Effects from the Proposed Project:**

<b><u>Key to Rank</u></b>	
NA	<i>Not applicable</i>
N	<i>No effects</i>
B	<i>Potentially beneficial effects</i>
A	<i>Potentially adverse effects</i>
M	<i>Corrective action required</i>
P	<i>Additional permits will be required</i>

Rank	Consideration	Remarks
<b>PHYSICAL AND BIOLOGICAL ENVIRONMENT</b>		
N	1. SOIL SUITABILITY, TOPOGRAPHIC AND/OR GEOLOGIC CONSTRAINTS (soil moisture, unstable soils or geologic conditions, steep slopes, erosion potential, subsidence potential, seismic activity)	The facility is built in the historical channel of Medicine Rock Coulee. The coulee upstream of the facility has been altered for the infrastructure of the town and the interstate highway. Storm water from upstream is channelized around the lagoons. The facility is underlain by Quaternary alluvium; the adjacent hills are Cretaceous Kevin Formation dominated by shale. The underlying soil is the Vanda silty clay. The NRCS has identified this soil type as having features that are "very favorable" and the soil is "not limited" for lagoon use/construction/location.
N	2. HAZARDOUS FACILITIES (power lines, hazardous waste sites, distances from explosive and flammable hazards including chemical/petroleum storage tanks, underground fuel storage tanks and related facilities such as natural gas storage facilities and propane tanks)	Facility is a wastewater treatment facility that serves a small community with no significant industrial dischargers. No hazardous materials will be used or stored onsite.

N	3.	AIR QUALITY (effects to or from project, dust, odors, emissions)	A facultative lagoon may have period odor.
N	4.	GROUNDWATER RESOURCES & AQUIFERS (quality/nondegradation, quantity/reliability, distribution, uses/rights, number of aquifers, mixing zones)	A search of the GWIC database shows that not many wells are completed near the WWTF. Shallow monitoring wells (<20 feet deep) have been completed in the alluvial valley of Medicine Rock Coulee. Static water levels were not reported in many of these wells, nor have aquifers identified. Water quality data were not available, although some wells logs identify "rust", caliche, and gypsum in corings. Well logs show clay-dominated alluvial material with interbedded poorly sorted silt & sand.
N	5.	SURFACE WATER RESOURCES (quality/nondegradation, quantity/reliability, distribution, uses/rights, storm water controls, source of community supply, community treatment, mixing zones)	Discharges are regulated by limits established in the permit. All pollutants discharged meet National Secondary Standards, Non-Degradation or Water Quality Based Effluent Limitations to protect the receiving water quality.
N	6.	VEGETATION AND WILDLIFE SPECIES AND HABITATS, INCLUDING FISHERIES AND AQUATIC RESOURCES (threatened, endangered, sensitive species, prime habitat, population stability, potential for human wildlife conflicts, effectiveness of post-disturbance plans)	A survey of the Natural Heritage Program did not identify any species of special concern within a 1-mi radius of the discharge.
N	7.	UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES (biologic, topographic, wetlands (within one mile), floodplains (within one mile), scenic rivers, natural resource areas, etc.)	No additional impacts to the environment will occur because the facility has long been established at the site.
N	8.	LAND USE (waste disposal, agricultural lands [grazing, cropland, forest lands, prime farmland], recreational lands [waterways, parks, playgrounds, open space, federal lands], access, commercial and industrial facilities [production & activity, growth or decline], growth, land-use change, development activity)	Land use at the permitted facility is unlikely to change during this permit cycle. Any alterations to the facility and/or landuse require notification of the Department and may require a modified or updated permit.
N	9.	HISTORICAL, CULTURAL, & ARCHEOLOGICAL (sites, facilities, uniqueness, diversity)	The current facility has been in this location for decades.
N	10.	AESTHETICS (visual quality, nuisances, odors, noise)	The wastewater facility has been in the current location for decades. Urban development is low.
N	11.	DEMANDS ON OR CHANGES IN ENVIRONMENTAL RESOURCES INCLUDING LAND, WATER, AIR, OR ENERGY USE (need for new or upgraded energy sources, potential for recycling, etc.) { See (4), (5), and (8). }	No impacts are expected.

Rank	Consideration	Remarks
<b>IMPACTS ON THE HUMAN POPULATION</b>		
NA	12. CHANGES IN DEMOGRAPHIC CHARACTERISTICS (population quantity, distribution and density, rate of change)	No impacts are expected.

N	13.	GENERAL HOUSING CONDITIONS (quality, quantity and affordability)	No impacts are expected.
NA	14.	POTENTIAL FOR DISPLACEMENT OR RELOCATION OF BUSINESS OR RESIDENTS	None
N	15.	PUBLIC HEALTH AND SAFETY (medical services and facilities, police, fire protection and hazards [see (2)], emergency medical services [see (8), LAND USE for waste disposal])	Public health and safety will be improved by treating the community's domestic sewage prior to discharge.
N	16.	LOCAL EMPLOYMENT AND INCOME PATTERNS (quantity and distribution of employment, economic impact)	No changes to employment or income patterns are expected.
NA	17.	LOCAL AND STATE TAX BASE AND REVENUES	If, due to permit conditions, the facility fails to provide the level of treatment to prevent pollutants from being discharged to state waters, the facility may have to raise sewer rates to cover development and construction costs.
NA	18.	EFFECTS ON SOCIAL STRUCTURES AND MORES (social conventions/standards of social conduct), DEMANDS ON SOCIAL SERVICES (law enforcement, educational facilities [libraries, schools, colleges, universities], welfare, etc.)	No impacts are expected at this time.
NA	19.	TRANSPORTATION NETWORK (condition and use of roads, traffic flow conflicts, rail, airport compatibility, etc.)	No impacts are expected at this time.
N	20.	CONSISTENCY WITH LOCAL ORDINANCES, RESOLUTIONS, OR PLANS (conformance with local comprehensive plans, zoning or capital improvement plans)	No impacts are expected at this time.
N	21.	REGULATORY RESTRICTIONS ON PRIVATE PROPERTY RIGHTS ( <i>Are we regulating pursuant to a police power? Does the Agency action restrict the use of the property beyond the minimum necessary to achieve compliance with the Act? What are the costs of such additional restrictions resulting from proposed permit conditions? Are there other, less restrictive ways of achieving the same goal? See your assigned legal counsel for assistance preparing this section. [See the Private Property Assessment Act checklist accompanying this permit for details.]</i> )	The limits set within the permit do not impose unnecessary demands on the Permittee at this time. Issuance of the permit will not affect private property.

Other groups or governmental agencies contacted or which may have overlapping jurisdiction:

None

Public Involvement:

Thirty-day public comment period, beginning in September 2006

Individuals or groups contributing to this EA:

State of Montana, DEQ Permitting & Compliance Division

Summary of Issues:

See Statement of Basis

Summary of Potential Effects:

See Statement of Basis

**Cumulative Effects:**

None

**Recommendation:**

Grant the Surface Water Discharge permit

**Recommendation for Further Environmental Analysis:**

☐ Prepare an EIS

☐ Prepare a more detailed EA

☒ No further analysis

EA prepared by: Rebecca Ridenour

Date: June 2006

**Bureau Check-off**

AWMB \_\_\_\_\_

CSB \_\_\_\_\_

EMB \_\_\_\_\_

IEMB \_\_\_\_\_

WPB \_\_\_\_\_

Other \_\_\_\_\_

**Approved by:**

Bonnie Lovelace, Chief  
Water Protection Bureau

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)